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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/786,036

Applicant(s)

YANG ET AL.

Examiner

Hanh Phan

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-19 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 05/01/2007.

Claim Objections

2. Claims 10 and 15 are objected to because of the following informalities:

-In Claim 10, line 1, the phrase "**an EPON ring**" should be changed to -- an Ethernet passive optical network (EPON) ring --.

-In Claim 15, line 1, the phrase "**an EPON ring**" should be changed to -- an Ethernet passive optical network (EPON) ring --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakata et al (US Patent No. 6,414,768).

Regarding claim 1, referring to Figures 1, 4-6 and 9, Sakata et al teaches an Ethernet passive optical network (EPON) ring comprising:

an optical ring (i.e., optical ring 1, Fig. 1) with a first end and a second end (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54);

an optical line termination (OLT)(i.e., Office Device OLT 2, Fig. 1), which is coupled to the first end and the second end of the optical ring (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54);

a plurality of optical network units (ONU) (i.e., ONU#1, ONU#2,..., ONU#n, Fig. 1), each of which is connected to the optical ring between the first end and the second end, thus defining a plurality of intersections on the optical ring (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54); and

a plurality of three-port passive optical splitting modules (i.e., optical couplers 7, Fig. 1), each of which is installed at one of the intersections and contains three optical ports (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54);

wherein the three optical ports in each three-port passive optical splitting module (i.e., optical coupler 7, Fig. 1) are connected using three two-way passages to allow the ONU to transmit/receive data via the first end and the second end of the optical ring to/from the OLT (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Regarding claim 2, Sakata et al further teaches each of the three-port passive optical splitting modules (i.e., optical couplers 7, Fig. 1) contains three sub-fibers and three optical splitters so that the optical splitters provide the three optical ports and the three sub-fibers couple to the three optical splitters to form the passages (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Art Unit: 2613

Regarding claim 3, Sakata et al further teaches each of the three-port passive optical splitting modules (i.e., optical couplers 7, Figs 1 and 4) is a plane-wave waveguide (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Regarding claim 4, Sakata et al further teaches the OLT (i.e., Office Device OLT 2, Fig. 1) contains a main server (i.e., Act System OSU 3a, Fig. 1) and a backup server (i.e., Standby system OSU 3b, Fig. 1) connecting to each other, the main server connecting to the first end of the optical ring and the backup server connecting to the second end of the optical ring (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Regarding claim 5, Sakata et al further teaches the backup server (i.e., Standby System OSU 3b, Fig. 1) only backs up data in its normal state and uses the backup data for rescue purposes when the optical network breaks (i.e., col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Regarding claims 6, Sakata et al. further teaches when there is a breaking point on the optical ring the backup server enables the downstream ONU to transmit/receive data (i.e., Figs. 5 and 6, col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Regarding claim 7, Sakata et al further teaches when there is a breaking point on the optical ring the OLT determines the location of the breaking point according to the data of the ONU received via the first end and the second end (i.e., Figs. 5 and 6, col. 3, lines 55-67, col. 4, lines 1-67 and col. 5, lines 1-54).

Allowable Subject Matter

5. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 10-19 are allowed (if overcome the objection above).

Response to Arguments

7. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


HANH PHAN
PRIMARY EXAMINER